## Practical Assignments                    Sub: RDBMS Using Oracle -1

(1) Create the following tables in oracle.

**Table-1: TblEmp**
**PriamryKey: Eno**

| Fields | Data types | Size |
|---|---|---|
| Eno | Varchar2 | 5 |
| Ename | Varchar2 | 20 |
| EDept | Varchar2 | 15 |
| EDesig | Varchar2 | 15 |
| EContact | Number | 10 |

**Table - 2: TblEmpSal**
**PriamryKey: Eno**

| Fields | Data types | Size |
|---|---|---|
| Eno | Varchar2 | 5 |
| Ename | Varchar2 | 20 |
| ESal | Number | 8,2 |
| Epf | Number | 8,2 |
| Egross | Number | 8,2 |

**Table - 3: TblAddress**
**PrimaryKey: Cityno**

| Fields | Data types | Size |
|---|---|---|
| Cityno | Number | 5 |
| Cityname | Varchar2 | 20 |
| Add1 | Varchar2 | 8 |
| Add2 | Varchar2 | 8 |
| Pincode | Number | 8 |

(2) Create the following tables in oracle.

**Table - 1: TblStdDetail**
**PrimaryKey: Sno**

| Fields | Data types | Size |
|---|---|---|
| Sno | Varchar2 | 5 |
| Name | Varchar2 | 20 |
| Add | Varchar2 | 50 |
| City | Varchar2 | 20 |
| Contact | Number | 10 |
| DOB | Date | 6 |
| Standard | Number | 2 |
| Per | Number | 2,2 |

**Table - 2: TblStdMarks**
**PrimaryKey: Sno**

| Fields | Data types | Size |
|---|---|---|
| Sno | Varchar2 | 5 |
| Name | Varchar2 | 20 |
| Sub1 | Number | 3 |
| Sub2 | Number | 3 |
| Sub3 | Number | 3 |
| Sub4 | Number | 3 |
| Sub5 | Number | 3 |
| Sub6 | Number | 3 |
| Sub7 | Number | 3 |
| Total | Number | 5 |
| Per | Number | 2,2 |
| Grade | Varchar2 | 3 |

**Table - 3: TblStdAttendance**
**PrimaryKey: Sno**

| Fields | Data types | Size |
|---|---|---|
| Sno | Varchar2 | 5 |
| SName | Varchar2 | 25 |
| Month | Varchar2 | 10 |
| PresentDays | Number | 3 |
| AbsentDays | Number | 3 |
| TotalDays | Number | 3 |

(3) Create the following tables in oracle.

**Table-1: TblBookDetail**
**PriamryKey:** B_id

| Fields | Data types | Size |
|---|---|---|
| B_id | Number | 5 |
| Btitle | Varchar2 | 25 |
| Author_name | Varchar2 | 25 |
| Publisher | Varchar2 | 25 |
| Pages | Number | 3 |
| Price | Number | 3 |
| ISBN | Number | 5 |
| Category | Varchar2 | 25 |

**Table-2: TblAuthorDetail**
**PriamryKey:** A_id

| Fields | Data types | Size |
|---|---|---|
| A_id | Number | 5 |
| Fname | Varchar2 | 25 |
| Lname | Varchar2 | 25 |
| Add | Varchar2 | 25 |
| Contact | Number | 10 |
| ISBN | Number | 5 |
| Email | Varchar2 | 25 |

**Table-3: TblBookCopies**
**PriamryKey:** B_id

| Fields | Data types | Size |
|---|---|---|
| B_id | Number | 5 |
| B_title | Varchar2 | 25 |
| Author_name | Varchar2 | 25 |
| Price | Number | 3 |
| ISBN | Number | 5 |
| Category | Varchar2 | 25 |
| Copy_avail | Number | 3 |

**Table-4: TblBookIssue**
**PriamryKey:** B_id

| Fields | Data types | Size |
|---|---|---|
| B_id | Number | 5 |
| B_title | Varchar2 | 25 |
| Author_name | Varchar2 | 25 |
| ISBN | Number | 5 |
| Category | Varchar2 | 25 |
| IssueDate | Date | 6 |
| ReturnDate | Date | 6 |
| User_Id | Number | 5 |
| Username | Varchar2 | 25 |
| Remarks | Varchar2 | 25 |

(4) Create the following tables in Oracle.

**Table Defination-1: TblCustAddress**

| Fields | Data types | Size |
|--------|-----------|------|
| Cno | Varchar2 | 5 |
| CFname | Varchar2 | 20 |
| Cadd | Varchar2 | 25 |
| City | Varchar2 | 20 |

**Table Defination-2: TblBank**

| Fields | Data types | Size |
|--------|-----------|------|
| Bno | Varchar2 | 5 |
| Cno | Varchar2 | 5 |
| Acno | Varchar2 | 5 |
| CustName | Varchar2 | 20 |
| Actype | Varchar2 | 5 |
| Odate | Date | |
| Amount | Number | 8,2 |
| NetBal | Number | 8,2 |

**Table Defination-3: TblBankaccount**

| Fields | Data types | Size |
|--------|-----------|------|
| Cno | Varchar2 | 5 |
| Acno | Varchar2 | 5 |
| Actype | Varchar2 | 5 |
| Curbal | Number | 8,2 |
| Minbal | Number | 8,2 |
| Maxbal | Number | 8,2 |

**Table Defination-4: TblBanktrans**

| Fields | Data types | Size |
|--------|-----------|------|
| acno | Varchar2 | 5 |
| Tdate | Date | |
| Drcr | Number | 8,2 |
| Tno | Varchar2 | 5 |
| Amount | Number | 8,2 |

**Table Defination-5: TblEmpmaster [Bank Related]**

| Fields | Data types | Size |
|--------|-----------|------|
| Eno | Varchar2 | 5 |
| Bno | Varchar2 | 5 |
| Fname | Varchar2 | 20 |
| Lname | Varchar2 | 20 |

**Table Defination-6: TblBranchmaster [Bank Related]**

| Fields | Data types | Size |
|--------|-----------|------|
| Eno | Varchar2 | 5 |
| Bno | Varchar2 | 5 |
| Bname | Varchar2 | 20 |
| Bcity | Varchar2 | 20 |

**Table Defination-7: TblAccmaster**

| Fields | Data types | Size |
|--------|-----------|------|
| Acfdno | Varchar2 | 5 |
| Cno | Varchar2 | 5 |

**Table Defination-8: TblAccFD**

| Fields | Data types | Size |
|--------|-----------|------|
| Acno | Varchar2 | 5 |
| Bno | Varchar2 | 5 |
| Curbal | Number | 8,2 |
| Intrest | Number | 8,2 |

(5) Create a table with following structure. Give name "student" and insert 20 records.

| Column name | Data type | Size | Desc. |
|-------------|-----------|------|-------|
| Rollno | Number | 4 | Primary key |
| Name | Varchar | 10 | Not Null |
| Course | Varchar2 | 8 | BCA, MCA, PGDCA |
| Sem | Varchar2 | 8 | 1 To 6 |
| Sub1 | Number | 4 | 1 to 100 |
| Sub2 | Number | 4 | 1 to 100 |
| Sub3 | Number | 4 | 1 to 100 |
| Total | Number | 5 | Default 0 |
| Per | Number | 5,3 | Default 0 |
| Result | Varchar2 | 5 | Null |
| Class | Varchar2 | 15 | Null |

## Modify table structure (Add new fields, remove fields, rename table)

1. Insert 10 records into the table.
2. Calculate total, per, result.
3. Insert one new column named "city".
4. Update city = Baroda in all records.
5. Change the size of "class" field to 20.
6. Change the datatype of "name" field to varchar2(25).
7. Rename the table to student_data.
8. Insert one new column "address".
9. Remove the column "address".

## Simple SELECT statement

❖ Perform the following queries on student_data table.
1. Display all records of above table.
2. Display all records of the students whose per is greater than 60%.
3. Display name of students whose name is "Ajay".
4. Display name of students whose class is "B".

5. Display all of students whose course is "BCA".
6. Display all records of students whose sem is "I".
7. Display all the records with column Name, course and sem.

**SELECT statement WHERE clause**
1. Find all the students of city "rajkot".
2. Find all the students who are not from "rajkot".
3. Display the rollno, name and city of the students with first class.
4. Find out the list of all students who stay in "delhi" or "rajkot".
5. Find all the students whose total mark is greater than 200.
6. Display the information of student whose roll no is 2.
7. Find the students whose percentage is between 50 and 60.
8. Delete all students whose total is below 100.
9. Delete all students of city "delhi" and department PGDCA.

**SELECT statement with ORDER BY, DISTINCT clause**
❖ Perform the following queries on student_data table.
1. Display the student list having first or second class.
2. Display the student list having first or second class and living in city "rajkot".
3. Display student name, total and city whose total is greater than 200 and living in city "rajkot" or "Bombay".
4. Display all students of "rajkot" or "Bombay" and of MCA or PGDCA department.
5. If the marks 20 of discipline is added to the total then display the new total with the column heading "newtotal" along with rollno, name , total.
6. In above query display the percentage with "%" sign.
7. Display name, city and total in descending order of total.
8. Display the list of student alphabetically.
9. Display name and city of all students with unique name.

**USE INBUILT FUNCTIONS**
❖ Perform the following queries on student table.
1. Find maximum total.
2. Find average of total.
3. Find sum of total of all students.
4. Find total number of students.

**USE GROUP BY and HAVING clause**
❖ Perform following queries.
1. Display the student data city wise.

2. Display course wise total number of students.
3. Display course wise average total of all students
4. Display semester wise course and city of all students of bca and mca.
5. Display result wise sum of total and sum of percentage of all students.
6. Display course wise average total of students of sem1 and sem2 students.
7. Display class wise count of all students of MCA who got first class or distinction.
8. Update class to "First class" who got percent greater than 70.